USAWC STRATEGY RESEARCH PROJECT

FIELD ARTILLERY(WO)MEN; TIME FOR A RELOOK?

by

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ABSTRACT

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Lead elements of the division have penetrated the initial obstacle belt of the defending Iraqis with minimal casualties. The second obstacle belt is another matter. CPT Mary Smith leads her company smoke vehicles forward to lay down a thick haze to mask the engineer team's breaching efforts while 1LT Sarah Williams personally leads the FOX vehicle to conduct chemical sampling. Two vehicles take direct hits from fortified enemy tank positions.

Meanwhile, a platoon of Kiowa and Apache helicopters arrive, commanded by CPT Susan Jones. 1LT Diana White scouts forward in a Kiowa to locate the fortified enemy positions and relays the location to Captain Jones who then moves forward and engages with hellfire missiles. Suddenly, emergency radio traffic - a SCUD missile is tracking toward the breaching effort. Colonel Heidi Brown's unit scrambles to action and soon two plumes from Patriot missiles are observed in the distance, successfully destroying the SCUD. At the same time, additional plumes are observed as CPT Michele Ray's MLRS unit engages the SCUD launch site with two ATACMS missiles.

This scenario did not play out on the Arabian Peninsula in 1991. In fact, it could not have. The reason for this has nothing to do with the type of battle being waged. Captains Smith, Jones, and Ray, lieutenants White and Williams, and Colonel Brown would not have been serving in the positions described in 1991. U.S law said they could not. All are women. Fast-forward to 2003 and a similar scenario. Every women listed could, and real women do, serve in the positions described – except one. CPT 'Michele' Ray would have to be named 'Michael' Ray; the Field Artillery still does not allow women officers to serve in units below the brigade level.

This paper will address this 'combat exclusion rule' and how the rule applies to the field artillery. More specifically, this paper examines the role of field artillery 'women'- their past contributions, their present predicament, and recommends a future career path that not only meets current law, but provides expanded opportunities for qualified women officers wanting to serve their country in the field artillery.

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FIELD ARTILLERY(WO)MEN; TIME FOR A RELOOK?

0620 HOURS, 24 FEBRUARY; IRAQI DESERT

Lead elements of the division have penetrated the initial obstacle belt of the defending Iraqis with minimal casualties. Iraqi soldiers surrender in droves and battle positions and armored vehicles lie destroyed or abandoned across the battlefield.

The secondary obstacle belt located 20 kilometers beyond is another matter. Not unlike the first layer of obstacles, this belt is composed of continuous minefields 100 to 200 meters wide, with barbed wire, antitank ditches, berms, and oil filled trenches. This will require the division's soldiers to conduct a significant breach under direct and indirect enemy fire – and now in daylight. Combat engineers move into position, but are pinned down immediately and begin taking heavy casualties. CPT Mary Smith from the chemical company leads the company smoke vehicles forward to lay down a thick haze to mask the engineer team's efforts. Two of CPT Smith's vehicles take direct hits from fortified enemy tank positions. A radio call goes back to the command post; progress is slow and casualties are mounting. Meanwhile, a platoon of Kiowa and Apache helicopters arrive, commanded by CPT Susan Jones. 1LT Diana White scouts forward in a Kiowa to locate the fortified enemy positions and relays the location to Captain Jones who then moves forward and directs engagement of the tanks with hellfire missiles.

Suddenly, emergency radio traffic - a SCUD missile is tracking toward the vicinity of the breaching effort. Soldiers in the breeching site scramble for cover – and for their chemical protective masks – while another unit commanded by Colonel Heidi Brown scrambles to action. Soon two plumes from Patriot missiles are observed in the distance, successfully destroying the SCUD. The significant signature of the Patriot launch gets the attention of forward deployed Iraqi operatives who initiate a ground assault on the Patriot position. COL Brown's soldiers engage the enemy and succeed in driving the attackers from their site – but at a cost of multiple casualties. At the same time, additional plumes are observed as CPT Michele Ray's MLRS unit engages the SCUD launch site with two ATACMS missiles.

The engineering effort continues to make progress. 1LT Sarah Williams personally leads the FOX chemical vehicle to the breaching site to conduct chemical sampling. Although significantly degraded, enemy resistance continues and one of the FOX vehicles is destroyed, killing all crewmembers.

Following 55 minutes of close combat in one of the toughest scenarios the engineers could have imagined, the breech is complete and initial armored vehicles move through the obstacle and deploy to destroy the remnants of the Iraqi resistance. On to Baghdad...¹

This scenario did not play out on the Arabian Peninsula in 1991. In fact, it could not have. The reason for this has nothing to do with the type of battle being waged; U.S forces did deal with significant obstacle belts just as onerous as those described. What differ in this scenario are the players. Captains Smith, Jones, and Ray, lieutenants White and Williams, and Colonel Brown would not have been serving in the positions described in 1991. U.S law said they could not. All are women.

Fast-forward to 2003 and a similar scenario. Every women listed could, and real women do, serve in the positions described – except one. CPT 'Michele' Ray would have to be named 'Michael' Ray; the Field Artillery still does not allow women officers to serve in units below the brigade level.

This paper will examine the role of field artillery women'- their past contributions, their present predicament - and recommend revisiting the 1999 Army decision denying assignment of female officers to MLRS.

This paper is not a plea of passion to open the gates of all field artillery units or all combat arms to women. Nor is it about the expansion of the field artillery to enlisted women, although the case presented may provide insights valuable to that issue. This paper is specifically about the present Army policy of commissioning women into the officer ranks of the field artillery.

Simply stated, the Army is commissioning female field artillery officers, albeit in small numbers, without providing them a viable, or competitive, future. This does not need to be the case. It is now possible to create a career path that not only meets current law, but also provides expanded opportunities for qualified women officers wanting to serve their country in the field artillery. Not only should female officers continue to be assessed into the field artillery, but these women can contribute significantly in the corps-level, general support, Multiple Launch Rocket System (MLRS) units like that commanded by CPT Ray in the above scenario.

THE PAST

Women have performed their jobs professionally. The King of Battle will always have a need for physically fit, qualified soldiers who can get the job done. Our history makes it abundantly clear that there is indeed a place for women in the Field Artillery 2

—Field Artillery Journal, 1986

During the 1970s, Congress and the services expanded the opportunities for women in the military.³ These expanded opportunities included the 1976 opening of the military academies to women, with the first women graduates receiving their commissions in 1980. The arrival of these women at the academies also marked the opening by the Department of Defense of many previously closed occupations, to include select aviation positions, to women. At the same time, many combat positions were officially closed to women.⁴

Army policy allowing women to choose field artillery as a branch was initiated in 1978. This policy allowed women to serve in all field artillery Table of Distribution and Allowances (TDA; garrison type units) organizations, but more importantly allowed women to serve in select Table of Organization and Equipment (TOE) units including the battery-level of both Lance and Pershing missile units.⁵ In fact, the first woman commissioned into the field artillery, 1LT Elizabeth A. Tourville, was assigned to a Pershing Missile unit in NATO immediately upon graduating from the Field Artillery Officer Basic Course in 1978.⁶ At that time, the leadership opportunities provided by assignment to high profile and politically sensitive units such as Lance and Pershing, career progression for women, at least in the missile component, was on par with their male counterparts⁷.

The Army reexamined assignment policies in 1983 and adopted Direct Combat Probability Coding (DCPC) to identify positions that would remain gender neutral. The DCPC system examines four fundamental dimensions of any position: the duties of the job or military occupational specialty, the unit's combat mission, the unit's likely battlefield location in a combat theater, as well as Army doctrine. Every position in the Army is assigned a combat probability code of P1 to P7, with P1 having the highest probability of direct combat and P7 having the least. P2 to P7 positions were open to the assignment of women. As a result of the initiation of the DCPC policy, assignments to Lance firing batteries were eventually closed to women, although women could continue to be assigned to the service and headquarter batteries within Lance battalions. The conventional version of the Lance missile system, however, was terminated for material-related reason the following year.

In February of 1988, the Department of Defense adopted a policy called the "Risk Rule." For the first time, a department-wide rule was established setting a single standard for evaluating positions and units from which the military service could exclude women. This rule "excluded women from non-combat units or missions if the risks of exposure to direct combat, hostile fire, or capture were equal or greater to the combat units they supported." Each service applied this Risk Rule to their own mission requirements; the result for the field artillery was that assignment to Lance missiles was closed to women at the battalion level or below.

Revisiting that decision became moot when, in 1991, Army Material Command decided to retrograde and demilitarize the nuclear-capable Lance variant. 11

The early 1990s saw the establishment of the Presidential Commission on the Assignment of Women in the Armed Forces. Although many combat aircraft positions within the Air Force and Navy were opened to women during this time, the Commission's 1992 report recommended retaining the direct ground combat exclusion for women. During this same period, the Intermediate Range Nuclear Forces Treaty resulted in the Pershing missile system being scrapped. In May of 1991, the final Pershing field artillery unit in Europe, the 59th Ordnance Brigade, was deactivated and soldiers assigned to Pershing duty were reassigned to other duties. The deactivation of Pershing had little effect on male Field artillery officers as they were easily reassigned to cannon or MLRS tactical units. Women, on the other hand, could no longer serve in the field artillery at a level below brigade unless they were assigned to a TDA unit.

This was a significant change in a short order of time. As recently as 1986, women officers could serve in any of four different areas of concentration; 13A General; 13B Light Missile; 13C Heavy Missile; and 13D Target Acquisition. By the mid-1990's the loss of leadership positions in Lance, and then Pershing, meant there was only one type of TOE unit still open for women serving in the FA; headquarters batteries of field artillery brigades and corps artilleries. All remaining positions were in TDA units at Fort Sill, to include the Army Training Center and batteries associated with support to the Field Artillery School. ¹⁶

THE PRESENT

Operation Desert Storm significantly impacted American perceptions of women in combat, so much so that in 1994 the Secretary of Defense rescinded the Risk Rule and instead established a new DOD-wide direct ground combat assignment rule allowing service members to be assigned to all positions for which they qualified. The intent of this change was to expand opportunities for women in light of the probability of theater-wide risk such as that found in Desert Storm. The exception remained excluding women from assignment to units below the brigade level whose primary mission was direct ground combat.¹⁷

What did those changes mean for the assignment of women in the field artillery? Inexplicitly, the simple answer is "not much". Although combat aviation, naval vessels and some elements of Army ground forces such as air defense and other combat support and combat service support branches were effected by these changes, the field artillery, still considered a combat arm, remains closed to women in tactical units below the brigade level.

There are currently sixty-five women serving in various capacities within the field artillery (Figure 1). Not all of these serve at the brigade or lower levels as explained below.

Women in	the Field Artillery			
Rank	Basic Branch	Single Track	Branch Detail	Total
COL	1			1
LTC	6	7		13
MAJ	4	8		12
CPT	5			5
LT	9		25	34

Basic Branch: Controlled by Field Artillery (pure FA)

Single Track: Basic branched FA; now single track in functional area **Branch Detail**: Controlled by other base branch; initial assignment to FA

FIGURE 1: WOMEN IN THE FIELD ARTILLERY

Basic Branch. Basic branch officers are 'pure' field artillery. They were commissioned into the field artillery and serve in positions either within the field artillery or in positions that are considered branch-immaterial. The competitive peers for basic branch officers are other field artillerymen who follow a similar career path. Under Officer Professional Management System (OPMS) III, these officers are considered in the 'operational' career field and only compete against other officers in that career field during the Department of the Army centralized selection board process.¹⁹ All officers are considered 'basic branch' until approximately their tenth year of service when they formally select their career field. The selection of career fields could mean that an officer chooses to remain in his or her 'basic branch' - or as officially stated, to remain in the 'Operational Career Field' - or the officer can select to 'single track' in any myriad of specialty areas. The preponderance of officers remains in the Operational Career Field.

'Single Track' officers were originally commissioned in the field artillery but are now working in another specialty area. Under OPMS, 'single track' officers work within a specialty in support of a multitude of functional career fields. Public Affairs, Foreign Area Officer, Acquisition, and Space Operations are examples of 'single track' functional areas. Officers selected for 'single track' at approximately their tenth year of military service are removed from the operational channels, are assigned to positions coded for their specialty, and now compete against their single-track peers in the competitive selection process. These officers continue to wear their base-branch insignia, but are centrally managed by their functional component personnel manager – not the field artillery branch. These 'Single Track' officers are not a concern to my thesis. Although a woman field artillery officer can certainly find success in her

'Single Track', she is now enjoined with a smaller, more elite pool of officers not in competition with basic branch officers. In effect and practice, she wears the field artillery branch, but is not assigned to the field artillery.

Branch Detail: 'Branch detailing' ensures branches with large lieutenant requirements are filled to their levels using other basic branches having fewer lieutenant requirements. Combat arms branches (Field Artillery, Armor, Infantry) have large requirements for lieutenants while many Combat Service Support branches (Transportation, Military Intelligence, Ordnance, Signal) require fewer lieutenants and more officers at the captain-level and higher. In effect, branch detailed lieutenants are borrowed from their basic branch for 24, 36 or 48 month periods. While serving in their detailed branch, these lieutenants gain valuable troop leading experience in the combat arms as platoon leaders and company-level staff members. These branch detailed women will depart the field artillery in sufficient time to attend a transition course for their permanent branch. Although branch detailing is an important program for the branches mentioned, the lieutenants detailed to FA branch will never rise to a position of higher authority in FA than the battery-level; their progression in their permanent branch will be governed by other factors than the assignments held while serving with the FA.

Female officers in the basic branch column are the true concern of this author. These women will compete in the operational career field for promotions as well as future leadership positions under the centralized board process. The totality of the centralized process includes not only promotion at every level above 1st lieutenant, but also selection for the Command and Staff College, battalion command, the senior service colleges, and brigade command.

Considering, then, the basic branch career paths between a male and female field artillery officer, the experience in the formative years as lieutenants and captain centers on the differences a man gets as a tactical firing platoon leader, compared with the administrative experience a women gets as an Executive Officer in the Field Artillery Training Center. This is not to say that leadership opportunities within the Initial Entry Training (IET) environment are not positive developmental experiences. The difference for a lieutenant in the IET environment is that the preponderance of direct leadership of soldiers comes from Non-Commissioned Officers; the officer's role is centered more on administration.²² All officers, not just women, are disadvantaged during their earliest years by not gaining valuable troop-leading experience in a tactical setting, particularly as platoon leader.

Once the rank of captain is attained, the opportunity for battery command presents itself.

All captains in the field artillery must command at the battery level to be considered 'branch qualified' as a company-level officer. Those officers having commanded TDA batteries (the

preponderance of commands open to women) have historically been disadvantaged during the selection process for the Command and General Staff College. A female captain will occasionally be offered command of a headquarters battery in a field artillery brigade. Yet personal, recent experience demonstrates this is the exception and not the rule. This phenomenon is partly due to the simple fact that a woman is not always available at the right time and place to take command of this-type unit. However, I would contend that another, perhaps more significant issue is that even though the women can *only* command the headquarters battery in a field artillery brigade, many units have as standing policy that the brigade headquarters battery will serve as a 'second' command opportunity for the exceptional officer. This policy, if enforced, virtually removes the only TOE command opportunity for a field artillery woman officer.

The true challenge for women lies at the field-grade level and the requirement for field artillery officers to complete two years in a branch-qualifying position. This means a major must serve at least two years as a battalion Operations Officer or Executive Officer. Notice the level must be 'battalion'. The only battalion-level positions available to female field artillery officers are as Executive Officers in the Field Artillery Training Center as well as a select few TDA positions also at Fort Sill and a sprinkling of positions throughout the garrison Army. Because of these limited opportunities, field grade women in the field artillery are significantly disadvantaged compared to their male counterparts.

Can they make it despite this obstacle? Thankfully the answer is yes. However, the quality of women leader required for success under this path far outweighs the quality required to make it through the tactical route. That is truly a strong statement, but if success is measured by selection for command at the battalion level, only two women have made that mark to date.²⁵

Given that lack of opportunity, the first logical question one might pose is this: Why would a woman even consider the field artillery as a career field? The simple answer - she can! U.S. Army regulations still allow women officers to request positioning in the field artillery, or as stated in U.S. Army Regulation 600-13, "...to serve in any officer...position except in those specialties, positions, or units (battalion size or smaller) which are assigned the routine mission to engage in direct combat, or which collocate routinely with units assigned a direct combat mission." This 'official' position clearly allows women to request commissioning in the field artillery – with limitations to the type unit she can serve in. The specific numbers of women who have branched 'pure' field artillery in the past 10 years is shown in figure 2.

Women Accessions into Field Artillery				
	USMA	ROTC	Total	
1992	1	0	1	
1993	0	0		
1994	0	0		
1995	0	5	5	
1996	0	0		
1997	0	0		
1998	0	4	4	
1999	0	17	17	
2000	1	8	9	
2001	1	22	23	
2002	1	9	10	
Total	4	65	69 2	

FIGURE 2: WOMEN ACCESSIONS INTO THE FIELD ARTILLERY

Given 'she can', a woman requesting assignment to the field artillery branch is made fully aware of the consequences of her action. Specifically, every women requesting field artillery as a branch choice must be counseled by the Reserve Officer Training Corps (ROTC) Professor of Military Science (or United States Military Academy equivalent) utilizing the Standardized Briefing for Women Considering Field Artillery, which states: "It is in your best interest to think through very carefully your decision to request the Field Artillery Branch. Though the branch is open to women, there are constraints that must be considered before making your final branch decision." ²⁸

So she can, but should she? The answer to that question is also simple – it simply doesn't matter. Regardless of their personal motivations, desires, or ambitions, women are among the ranks of the field artillery and Army policy allows them to be there. The better questions to ask would be to the Army. Why are women allowed to request the field artillery as a basic branch if no enhancing career opportunities are provided for their advancement commensurate with their male peers? More importantly, what is the Army – and specifically the Commanders of Major Army Commands (MACOMs) – doing to meet their regulatory requirement to "ensure that the assignment of women provides full career opportunities to reach their highest potential." The answer is again simple – they aren't. The Army is commissioning women into the ranks of the field artillery and not providing them a competitive, viable career path – contrary to regulation and often masked in issues that are irrelevant given the changing nature of modern combat.

Understanding the issues surrounding assigning women to the field artillery requires an understanding of the combat exclusion and risk rules as well as the definition of close combat.

These rules and definitions then can be compared to the actual tactics, techniques and procedures (TTP) of select field artillery systems to gain an appreciation of the applicability or lack of applicability of the rules to that system. In this case, the specific system considered will be the Multiple Launched Rocket System (MLRS); the level of command under consideration is the batteries and battalions in the Corps General Support FA brigades.

The lifting of the Risk Rule, and more significantly, the defining of 'direct ground combat', raises significant issues regarding female officers in the FA, particularly regarding denial of their assignment to the MLRS.

The definition of direct ground combat as "engaging an enemy on the ground with individual or crew served weapons, while being exposed to hostile fire and to a high probability of direct physical contact with the hostile force's personnel"³⁰ appears on the surface to be straight forward. In addition, the description that "Direct ground combat takes place well forward on the battlefield while locating and closing with the enemy to defeat them by fire, maneuver, or shock effect"³¹ certainly fits the maneuver combat arms such as Infantry and Armor. Clearly these-type units close with the enemy and defeat them by fire and maneuver.

What about the rest of the forces occupying the battlefield? What about attack aviation units (now open to women) who attack across the forward line of troops to search for and destroy deep targets? What about the forward support maintenance units supporting (and colocated with) maneuver units "well forward on the battlefield?" What about the chemical units supporting a breach under fire? What about MLRS?

This final question regarding MLRS is not a new one. A recommendation made by the Defense Advisory Committee on Women in the Services (DACOWITS) to the Secretary of the Army in the fall of 1993 was to "keep FA open to women and expand opportunities by opening MLRS." This recommendation would remain as one of DACOWITS top issues for the next six years, or until the Army's decision in 1999 to keep MLRS 'closed' to women.³³ The argument surrounding this decision needs to be revisited, and the decision reversed.

DACOWITS presented an initial rationale for admittance of women into MLRS based on "...the DOD policy on direct ground combat and collocation, if consistently applied, does not preclude opening MLRS." DACOWITS' recommendation to the Secretary of Defense in the spring of 1999 was specific, stating this issue warranted his "personal review." In their report, DACOWITS provided multiple conclusions based on "extensive briefings, research, and on-site personal observations." On-site personal observations included a visit to Fort Sill in January of 1999. The final analysis during this round of deliberations between DACOWITS, Fort Sill and Army Policy was that "MLRS is a dynamic, demanding and important career field. It is

possible to justify the exclusion of women from MLRS based on the 1994 Assignment Rule and definition of direct ground combat; however, the exclusion is *not necessarily compelled* (emphasis added).³⁸

The Fort Sill position at this point was rigid; the highest levels of the Department of the Army endorsed the FA School position as recently as April 1999.³⁹ This position was articulated (in draft) to DACOWITS by Army Chief of Staff Shinseki along with what can only be described as amplifying information pertaining to the initial steps of Transformation.

'The nonlinear battlefield has made it more difficult to apply the terms 'combat' and 'non-combat' to define women's roles within the Army in a traditional manner.' He then added that the Army had to articulate better the basis for making decisions to open or close military occupational specialties and areas of concentration to women.⁴⁰

Although this paper is not meant to serve as a rallying point for proponents to any DACOWITS position, the nature of emerging facts demonstrate that the time has come to reexamine the Army's position on opening MLRS to female officers. Specifically, what are the tactical employment considerations of MLRS that contribute to or detract from giving it a direct ground combat role classification? Particularly in view of the above statement by the Chief of Staff of the Army, now is the time to 'articulate better' the argument to open or close MLRS to women officers. The means of articulating this argument are the issues raised by DACOWITS in their studies prior to 1999.

FOUR ISSUES TO CONSIDER:

ISSUE ONE: MLRS AS A DIRECT GROUND COMBAT WEAPON

It is not the primary mission of MLRS to engage in direct ground combat as defined in the Department of Defense (DoD) 1994 "Direct Ground Combat Definition and Assignment Rule". There is not sufficient evidence that MLRS crewmembers experience "a high probability of direct physical contact with the host force's personnel." It is not the mission of MLRS to locate and close with the enemy. ⁴¹

MLRS is not a direct ground combat weapon, but rather is "an important fire support weapon to maneuver commanders at all levels...MLRS rocket range exceeds most cannon munitions and allows maneuver commanders the opportunity to augment cannon fire with a

lethal indirect fire capability enhancing maneuver force protection."⁴² Nowhere in MLRS doctrine is the system described as a close support weapon. In fact, due to the significant dispersal of the individual MLRS bomblets, friendly units should not be located within 2000 meters of the target.⁴³ The technical aspects of MLRS employment, particularly the surface danger zone of 2000 meters at the terminal end of the rocket trajectory, make this combat system an ineffective and impracticable direct close combat weapon.

Ascertaining the probability of direct physical contact with hostile personnel comes best from experience. In the case of MLRS that means there would have had to have been an incident during Desert Storm (the only U.S. combat action to date involving MLRS) where MLRS came into direct contact with enemy forces. That was not the case. Obviously, the absence of historical examples does not mean that direct, physical contact is not a concern. In fact, this issue is a major concern based on the specified tactics, techniques, and procedures for MLRS and the positioning of MLRS on the battlefield: "Fighting forward...does increase the risk to soldiers since MLRS units have limited ability to defend themselves against ground attack." This risk to soldiers is valid, but no more so than many other branches in support of Army combat units. Issue #2 further addresses this situation as it specifically applies to MLRS.

ISSUE TWO: MLRS OPERATIONAL EMPLOYMENT

MLRS operates independently on the battlefield using 'shoot and scoot' tactics, techniques and procedures, and therefore is not "doctrinally required to physically collocate and remain with direct ground combat units that are closed to women." Additionally, because MLRS does not have any armament of its own, it necessarily avoids hostile fire or direct ground combat.⁴⁵

Although MLRS is not *required* to collocate with maneuver units, doctrine states "positioning launchers forward and intermixing them with other fire support systems and maneuver units ...degrades the ability of the enemy to template MLRS operations and locations."

The Fort Sill position regarding this issue acts as if all FA units are the same: "FA units are exposed to direct hostile fire, and have a high probability of direct ground attack...FA units are deployed well forward, intermixed with maneuver units,"

Although specified as a truth in written, doctrinal form, the factual truth is MLRS is employed differently than cannon artillery systems.

MLRS 'shoots and scoots'. MLRS launchers occupy 'hide' positions until receipt of a fire mission, where they then proceed to a firing position, fire their rockets or missiles, and return to

the hide position. MLRS is not designed to, nor has the armament to, closely engage any enemy ground attack.

Although the MLRS launcher is, by definition, 'crew served', so also are the Patriot and Avenger missile system when considered in that regard. A 'crew-served' weapon, when realistically considered in light of the combat exclusion rule, is one that is fired directly at an approaching enemy. A machine gun, a tank, or even a howitzer in the 'direct fire' mode classifies in that sense. However, unlike a howitzer, the MLRS itself cannot be fired in a direct-fire role. MLRS must be fired indirectly, and as stated, minimum range is a significant concern. In addition, the MLRS launcher has no crew-served weapon such as a machine gun to effectively counter any ground attack. There may indeed be occasions when individual weapons would be fired at enemy soldiers, but not to close with and destroy the enemy. Any soldier on the battlefield may be required to use their individual weapons in the same manner any MLRS soldier would.

The important point to be made in this regard is that a women assigned to an MLRS unit would have less direct contact, or certainly no more than, many other women on the battlefield. This point specifically speaks to Issue three.

ISSUE THREE: MLRS AND THE 'RISK RULE'

There is great potential for MLRS to be exposed to hostile fire on the battlefield. However, because the DoD "Risk Rule" has been rescinded, exposure to hostile fire alone is not a sufficient reason to close MLRS to the assignment of women.⁴⁸

This paper has already made the point and provided examples of units with women in them located near the front – obviously intermixed with the combat maneuver units. The Chemical Officer conducting the sampling at the breach is one example. Again, Operation Desert Storm significant impacted American perceptions of women in combat, so much so that the "Risk Rule" was rescinded soon after the war. As a result of that change, receiving fire from enemy forces should not impact assignment policies for women on the battlefield, unless those units are closing with and destroying the enemy. No longer can women be "excluded...from non-combat units or missions if the risks of exposure to direct combat, hostile fire, or capture were equal or greater to the combat units they supported."⁴⁹

ISSUE FOUR: OTHER BRANCHES AS PRECEDENTS

Other units and positions already open to the assignment of women operate well forward on the battlefield.⁵⁰

This is a final point in any coherent discussion about the combat exclusion law. What makes one position legally open to women and another closed, specifically considering one is in as much, if not more, danger from direct ground combat than the other? The fact of the matter is that women have the opportunity to serve and contribute successfully in positions of danger and risk in many other branches, and this opportunity supports their professional development and increases their competitiveness with their basic-branch peers. One recent example worth discussion comes from the Air Defense Artillery (ADA) branch.

ADA has allowed women to serve within Patriot Missile battalions for years. Patriot battery locations are generally well to the rear of the forward line of combat troops so are not effected by the collocation rule. Recently, ADA opened the majority of female positions in the Short Range Air Defense (SHORAD) units as well.⁵¹ This decision, requested in March 2002 by the Chief of the Air Defense, Major General Stan Green, was based on changes to warfighting. He stated, "The range of U.S. weapons has increased significantly, ...additionally, the traditional battlefield delineation between 'our troops and theirs' has blurred."⁵² This change opens positions for women in "active-component, heavy divisional battalion headquarters, the headquarters battery, and *Avenger battery commander slots* (emphasis added)."⁵³

Major General Green went on to state that "dropping the barriers to women in SHORAD units is not only the right thing to do, but is necessary to pave the way for the transition to the future Army." Or as stated by another service official, "It does not make sense to continue to keep these units closed to women in air defense specialties, which has the effect of limiting assignment opportunities and experiences for both our men and women." Obviously, the Air Defense community speaks with action as they have already selected their first woman as brigade commander of a tactical air defense unit. 56

In addition to these four issues as a basis for a solid argument to allow women to serve in the MLRS, two additional points are worthy of mention.

First of all, there are no extraneous physical requirements for a soldier to be assigned to MLRS. In fact, there are none for any of the field artillery job specialties. The question of whether or not there should be might be a subject for another paper on another day, but under current rules, no limiting physical factor exists outside of the mandatory semi-annual Army Physical Fitness Test that all soldiers must pass.

Secondly, there are no professional military educational issues. Women choosing field artillery branch attend the same Officer Basic Course and Captain's Career Course as any other field artillery officer. The curriculum for men and women is exactly the same in both cases. This even includes attendance of women in a system-specific course following the core

curriculum. In other words, women are developed professionally with every bit of tactical knowledge as her male counterpart. If the assignment restriction were not in place, a woman entering her first tactical MLRS unit would have every educational advantage of her male peers.

CONCLUSIONS

Successful integration of women into our armed forces will continue to generate animosity in certain circles no matter the argument provided. But the simple fact is that the momentum of this integration appears to be picking up steam; the recent air defense expansion of positions for women is one example.

Yet unlike the air defense, female officers commissioned into the field artillery have a future limited in both scope and responsibility. Their assignment limitations to levels of brigade or above, or more significantly and problematically to TDA units exclusively, is a detriment to their competitiveness with their male peers assigned to tactical units. If this were not the case, the counseling statement a woman must sign when applying for commissioning in field artillery would not have the warning: "The lack of a weapon system opportunity in the early years of an officer's career may be a discriminator." 57

Now is the time to either accept women into an expanded role in positions within the field artillery where they can successfully serve and contribute, or cease the unfair and prejudicial practice of commissioning women into the field artillery in the first place. Stopping the commissioning of women is *not* required nor appropriate. What is required is for the Army to provide a successful and meaningful career path within the field artillery for women already commissioned in the branch, and those who wish to be commissioned in the branch.

Making such a change to the assignment policies within the field artillery requires a reassessment of the place MLRS falls within the Combat Exclusion Law. This law, as written, and in consideration of the proper operational employment of Multiple Launch Rocket System, does not prohibit female officers from serving with this system.

An MLRS open to female officers significantly changes career opportunities. Female officers will be able to serve at the tactical level in any MLRS unit across the world, although the preponderance of junior leadership positions will remain at Fort Sill in the field artillery brigades of the 3d Armored Corps Artillery. These same women will then be eligible for field grade positioning in these same units. Selection boards at all levels will observe files of equality between male field artillery officers and female field artillery officers. Whereas there presently are less than 10 positions available for women to command at the battalion level (TDA only), opening MLRS makes available almost three times as many command opportunities.⁵⁸

Additionally, the preponderance of the Army's field artillery is located in the National Guard, including fifteen MLRS battalions. Opening MLRS to women could possibly ease officer-recruiting challenges in these MLRS battalions. Although further research would be necessary to determine if this would in fact prove true, the possibilities of an expanded recruiting base could be significant.

A realistic and truthful assessment of the Combat Exclusion Law as it applies to MLRS, a necessary opening of new career enhancing opportunities for women, and a possible expansion to the recruiting base, all point to the necessity to 're-look' the opening of the Multiple Launch Rocket System officer positions to women.

Female officers presently serve their country proudly in military positions never imagined in years past. Female officers are proving daily their exceptional qualifications to contribute to units not limited by the regulatory requirements of the Combat Exclusion Law. Female officers can successfully – and legally – serve in MLRS, and they should be allowed to.

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ENDNOTES

- ¹ Phillip Carter, "War Dames," <u>The Washington Monthly</u>, December 2002, p. 32. The idea of using a possible real world example to demonstrate women's roles in combat comes from this article. All names used are fictitious except one; COL Heidi Brown currently serves as Commander of a Patriot Air Defense Missile brigade. Heidi is the first woman to have ever served as a tactical Air Defense battalion and brigade commander.
- ² "Women in the Field Artillery," <u>Field Artillery Journal</u> 54, (November-December 1986): 44. The annual November-December edition of the Field Artillery Journal is called the "Red Book" and generally contains an update on the state of the field artillery branch. Most years, this includes a "Career Guide" providing professional advice and information to all members of the branch. This quotation is a direct lift from one such article. At the time of this article, there were 157 women officers in career management field "13", Field Artillery.
- ³ General Accounting Office, Report to the Ranking Minority Member Subcommittee on Readiness, Committee of Armed Services, U.S. Senate; Gender Issues: Information on DOD's Assignment Policy and Direct Ground Combat Definition (Washington, D.C.: U.S. General Accounting Office, October 19, 1998), 1.

- ⁵ Major General Thomas F. Sikora, "Standardized Briefing for Women Considering Field Artillery Branch," memorandum for Superintendant USMA and Commanders U.S. Army Cadet Command and U.S. Army Total Army Personnel Command. Washington, D.C., 26 December 1995.
- ⁶ 1LT Elizabeth A. Tourville, interviewed by <u>Field Artillery Journal</u> 46, November-December 1978, Fort Sill, Oklahoma.
- ⁷ This statement is somewhat conjectural, as there are very few senior serving FA women officers. The best example available is COL Ann Horner who not only was the first women FA officer to command a battalion (2d Battalion, 80th FA in the Field Artillery Training Center a TDA unit), and presently serves as Commander, West Point Garrison (also a TDA unit). Ann's assignment pattern as lieutenant was as Executive Officer, Firing Platoon Leader, Assembly-Transport Platoon Leader and finally as Battalion S-2 for 2d Battalion, 377th FA (Lance) in the Federal Republic of Germany.

⁴ Ibid

⁸ "Women in the Field Artillery," 44.

⁹ Sikora. 2.

¹⁰ Ibid. 2.

¹¹ The Lance missile system history extends as far back as the 1950s. There were two variants fielded; the shelf-life of the non-nuclear variant eventually was extended thru 1984 while the nuclear variant was extended thru 1995. Lance was positioned throughout NATO, South Korea and at Fort Sill, Oklahoma. This information comes from a more detailed history of the Lance missile found at <www.redstone.army.mil/history/lance/chronologyb.html>.

¹² Ibid, 2.

¹³ Donato, 2.

¹⁴ Dane Mitchell Donato, "Out With Pershing, In With Sanity," 22 May 2001; available from http://www.suite101.com/article.cfm/6213/69782; Internet; accessed 19 January 2003.

¹⁵ "Women in the Field Artillery", 44. Not only did the officer list drop from four choices to two (General and Target Acquisition), but the enlisted choices dropped from four to two as well with the only technical MOS remaining being 93F Meteorological Crewmember. Since then, one additional MOS, 82C Surveyor, has opened to women, although assignments as 82C are limited to Brigade level or higher units.

¹⁶ Sikora, 2.

¹⁷ GAO Report, 3.

¹⁸ Jeffrey Witt <<u>wittj@sill.army.mil</u>>, "Female Accessions," electronic mail message to LTC Chris Fulton <<u>christopher.fulton@carlisle.army.mil</u>>, 16 January 2003.

¹⁹ The intent of the paper does not include a detailed description of OPMS III. Information on the OPMS III career fields, branches and functional areas can be found in DA PAM 600-3, Commissioned Officer Development and Career Management, dated Oct 98. This DA Pamphlet is on the United States Army Publishing Agency (USAPA) website <<u>WWW.USAPA.ARMY.MIL/PDFFILES/P600_3.PDF</u>>. Additional information can be found on MILPER MESSAGE NUMBER 03-032, TAPC-OPB-D, "Career Field Designation (CFD) Policies and Procedures, internet, <<u>http://perscomnd04.army.mil/MILPERmsgs.nsf/ALL+Documents/03-032?OpenDocument</u>.

²⁰ It is important to note that field artillery is officially considered a 'combat support' arm; however, in practice and effect it is treated as a combat arms branch. Officer and enlisted accessions into the field artillery are classified as combat arms. Officer candidates coming from Officer Candidate School and ROTC must select one 'combat arm' – field artillery is included in that combat arm selection list.

²¹ Department of the Army, Officer Assignment Policies, Details and Transfers, Army Regulation 614-100, (Washington, DC: U.S. Department of the Army, 20 Sept 00), para 3-1d, e & g. The objective of the Branch Detail program is to ensure branches with large lieutenant requirements are filled to their levels using lieutenant donor branches (basic branches) with fewer lieutenant requirements. Branch detail lieutenants are distributed annually under the Branch Detail Distribution plan. The plan is derived from lieutenant and captain authorizations based on 24 and 48 month projections for both donor and recipient branches. Officers are detailed for periods of 24 and 48 months, depending on their basic branch. The branch detail period for officers with basic branches of Finance, Military Police, Ordnance, Quartermaster, Signal and Transportation is 24 months in their detailed branch. Branch detail officers with basic branches of Adjutant General or Military Intelligence, serve a period of 36 months. A possibility for another paper on another day would be to look at the rational on branch detailing women into the field artillery where they are forbidden to serve in tactical units below the brigade level. The truth is the vast majorities of women detailed to the field artillery remain at Fort Sill and gain

their initial leadership experiences in the Training Center as an Executive Officer for an Initial Entry Training unit.

- ²² This comment is based on personal experience as a battalion commander of an Initial Entry Training (IET) battalion at Fort Sill from 1999-2001. The IET environment is centered on the Drill Sergeant. The battery executive officers, although involved in oversight of the Drill Sergeants, are more heavily focused on the administration of training.
- No specific documentation could be found to authenticate this claim; rather, personal experience as a seated member of the 1999 Command and General Staff Selection Board bears this point out. Although manner of performance is the overriding element to determine success in this board, there remains some prejudice to officers assigned to TDA commands at the battery level and instruction to board members must specifically address this issue. This prejudice is perhaps most pronounced in the officers themselves. While assigned as Deputy Commander for the Field Artillery Training Center and responsible for recommending selection of battery commanders to the brigade commander, at least two promising captains resigned their commissions rather than come accept a battery command in the Training Center.
- ²⁴ During a recent four-year assignment to Fort Sill, there was not a single incident of a field artillery women commanding one of the headquarters batteries of the four field artillery brigades on that post. This was partially due to very few 'pure' field artillery women officers to choose from, but even those women who were branch detailed were not the top choice for reassignment from the Training Center to the FORSCOM units unless these branch detailed women were assigned to a position where they could use their primary branch skills and not their FA skills. For example, one branch detailed officer (primary branch was Military Intelligence) was reassigned to a field artillery brigade to serve as Intelligence Officer; not a field artillery position.
- ²⁵ Two Field Artillery women have been selected for command at the battalion level, both in the Field Artillery Training Center at Fort Sill. Colonel Ann Horner commanded 2d Battalion, 80th Field Artillery from 1997-1999; LTC Annie Baker presently commands 1st Battalion, 19th Field Artillery, also in the Training Center. Both women served at the field-grade level in the Training Center.
- ²⁶ Department of the Army, <u>Army Policy for the Assignment of Female Soldiers</u>, Army Regulation 600-13 (Washington, DC: U.S. Department of the Army, 27 March 1992), 1.
 - ²⁷ The accession numbers come from two sources:
- 1. Thomas Durso, <<u>qt6691@exmail.usma.army.mil</u>>, "RE: Greetings from Carlisle," electronic mail message to Christopher Fulton <<u>christopher.fulton@carlisle.army.mil</u>>, 31 January 2003.
- 2. Mark Weinschreider, <<u>mark.weinschreider@monroe.army.mil</u>>, "Females in FA," electronic mail message to Christopher Fulton <<u>christopher.fulton@carlisle.army.mil</u>>, 27 January 2003.

²⁸ Sikora, 2.

²⁹ AR 600-13, para 1-11.c.

- ³⁰ Definitions of Direct Ground Combat are found throughout literature relating to women in combat. This direct lift is from Regina F. Titunik, "The First Wave: Gender Integration and Military Culture," Armed Forces and Society, Winter 2000, 230.
 - ³¹ GAO Report, 7.
 - ³² Ibid. Located under the heading "Recommendations" on the website.
- ³³ Command Historian, "<u>U.S. Army Field Artillery Center and Fort Sill Annual Command History, 1 January 1999 through 31 December 1999</u>," Fort Sill Oklahoma, June 2000. This document provides a complete background of the DACOWITS issue as it pertains to the actions between the FA School and the committee.
- ³⁴ DACOWITS, Fall 1998 Issue Book Force Development and Utilization Subcommittee, available from http://www.dtic.mil/dacowits/fall98_IssBk_ForceDU.htm, Internet; accessed 1 November 2002. The reader will note a new term in this quotation collocation. This term is used to refer to units that normally collocate with units meeting the definition of direct ground combat.
- ³⁵ DACOWITS, <u>Spring 1999 Issue Book Force Development and Utilization</u> <u>Subcommittee</u>, available from <<u>http://www.dtic.mil/dacowits/spring99_IssBk_ForceDU.html</u>>, Internet; accessed 1 November 2002.
 - ³⁶ Ibid
 - ³⁷ Command Historian, 176.
 - ³⁸ Ibid
- ³⁹ Ibid, 177. The highest levels of the Department of the Army referred to include the Deputy Chief of Staff for Personnel, LTG Ohle, as well as the Assistant Secretary of the Army for Manpower and Reserve Affairs.
 - ⁴⁰ Ibid. 178.
 - ⁴¹ DACOWITS, Spring 1999 Issue Book, 1.
- ⁴² Departments of the Army and Marine Corps, <u>FM 6-60; Tactics, Techniques, and Procedures for Multiple Launch Rocket System (MLRS) Operations</u>, (Washington, D.C., 23 April 1996), 3-1 through 3-2.
 - ⁴³ Ibid, 3-2.
 - ⁴⁴ Ibid
 - ⁴⁵ DACOWITS, Spring 1999 Issue Book, 1.
 - ⁴⁶ FM 6-60, 3-2.

- ⁵² Ibid
- ⁵³ Ibid
- ⁵⁴ Ibid
- ⁵⁵ Ibid

⁴⁷ Jeffrey Witt <<u>wittj@sill.army.mil</u>>, "Females in MLRS" electronic mail message to LTC Chris Fulton <<u>christopher.fulton@carlisle.army.mil</u>>, 16 January 2003. The specific information cited comes from a paper titled "DACOWITS and MLRS: The FA Position". This document provides the talking point for a briefing provided by MG Toney Stricklin, Chief of the Field Artillery at Fort Sill, to the general officers attending the 1999 Senior Fire Support Conference. The came as an attachment to the above cited email message.

⁴⁸ DACOWITS, Spring 1999 Issue Book, 1.

⁴⁹ GAO Report, 3.

⁵⁰ DACOWITS, Spring 1999 Issue Book, 1.

⁵¹ Erin Q. Winograd, "Army Opening Most Air Defense Slots to Female Soldiers," March 3, 2003; available from http://ebird.dtic.mil/Mar2003/s20030303158083.html; Internet; accessed 4 March 2003.

⁵⁶ Colonel Heidi Brown presently serves as commander of a Patriot brigade at Fort Bliss, Texas. Heidi is a 1981 graduate of the United States Military Academy who chose Air Defense Artillery as her basic branch upon commissioning. She also served as the first female commander of a tactical air defense battalion. Although Patriot does position in a way that removes it from the combat exclusion law because there is no 'collocation', the fact that she is a serving brigade commander in what is considered a tactical unit opens the door for future assignments of women leaders in SHORAD.

⁵⁷ Sikora, 3.

⁵⁸ Women can currently command any of the eight TDA battalions at Fort Sill. There are 17 battalion commands available in MLRS.

⁵⁹ Approximately 67% of all U.S. Field Artillery is located in the National Guard. This information is captured nicely in a map supplement in the 2002 Field Artillery Journal Redbook.

BIBLIOGRAPHY

- Carter, Phillip. "War Dames." The Washington Monthly. (December 2002): 32-37.
- Command Historian. <u>U.S. Army Field Artillery Center and Fort Sill Annual Command History,1</u>
 January 1999 through 31 December 1999. Fort Sill Oklahoma. June 2000.
- "Defense Advisory Committee on Women in the Services (DACOWITS)." Available from http://www.dtic.mil/dacowits/nav.html. Internet. Accessed 2 February 2003.
- DACOWITS. <u>Fall 1998 Issue Book Force Development and Utilization Subcommittee</u>. Available from <<u>http://www.dtic.mil/dacowits/fall98_IssBk_ForceDU.html</u>>. Internet. Accessed 1 November 2002.
- DACOWITS. <u>Spring 1999 Issue Book Force Development and Utilization Subcommittee</u>. Available from <<u>http://www.dtic.mil/dacowits/spring99_IssBk_ForceDU.html</u>>. Internet. Accessed 1 November 2002.
- DACOWITS. <u>Spring 2000 Issue Book Equality Management Subcommittee</u>. Available from <<u>http://www.dtic.mil/dacowits/Spr2000_IssueBk_EqualMgt.html</u>>. Internet. Accessed 1 November 2002.
- Departments of the Army and Marine Corps. <u>Tactics, Techniques, and Procedures for Multiple</u>
 <u>Launch Rocket System (MLRS) Operations</u>. Field Manual 6-60. Washington, D.C.. 23
 April 1996.
- Department of the Army. <u>Officer Assignment Policies, Details and Transfers</u>. Army Regulation 614-100. Washington, D.C.. 20 Sept 2000.
- Donato, Dane Mitchell. "Out With Pershing, In With Sanity." 22 May 2001. Available from http://www.suite101.com/article.cfm/6213/69782. Internet. Accessed 19 January 2003.
- Durso, Thomas carlisle.army.mil, "RE: Greetings from Carlisle." Electronic mail message to Christopher Fulton christopher.fulton@carlisle.army.mil>. 31 January 2003.
- Maples, Michael, D. "2002 State of the Field Artillery." <u>Field Artillery Journal</u>. Fort Sill, Oklahoma. November-December 2002.
- Redstone Arsenal Historical Information. "Lance". Available from http://www.redstone.army.mil/history/lance/chronologyb.htm>. Accessed 19 January 2003.
- Sikora, Thomas F., Director of Military Personnel Management. "Standardized Briefing for Women Considering Field Artillery Branch." Memorandum for Superintendent USMA and Commanders of U.S. Army Cadet Command and U.S. Army Total Army Personnel Command. Washington, D.C.. 26 December 1995.
- Times CNN telephone poll conducted 6 June 1997. Internet, *Polling the Nation*, Available from http://wenspirs.silverplatter.com:8000/waldo. Accessed 18 January, 2003.

- Titunik, Regina F. "The First Wave: Gender Integration and Military Culture." <u>Armed Forces and Society</u>. Winter 2000.
- Tourville, 1LT Elizabeth A.. First Female Graduate of FAOBC. Interviewed by <u>Field Artillery</u> Journal. November-December 1978. Fort Sill, Oklahoma.
- U.S. Army Cadet Command. <u>Cadet Command Circular 601-03-1</u>. 18 Mar 02, Para 3b. Available from http://rotc.monroe.army.mil/helpdesk/accessions-1/accessions%20OML%20devel.htm. Internet. Accessed 30 January 2003.
- U.S. Department of the Army. <u>Army Policy for the Assignment of Female Soldiers</u>. Army Regulation 600-13. Washington, D.C.: U.S. Department of the Army. 27 March 1992.
- U.S. General Accounting Office. Report to the Ranking Minority Member Subcommittee on Readiness, Committee of Armed Services, U.S. Senate; Gender Issues: Information on DOD's Assignment Policy and Direct Ground Combat Definition. Washington, D.C.: U.S. General Accounting Office. October 19, 1998.
- Weinschreider, Mark < mark.weinschreider@monroe.army.mil>. "Females in FA." Electronic mail message to Christopher Fulton < Christopher.fulton@carlisle.army.mil>. 27 January 2003.
- Winograd, Erik. "Army Opening Most Air Defense Slots to Female Soldiers." March 3, 2003. Available from http://ebird.dtic.mil/Mar2003/s20030303158083.html. Internet. Accessed 4 March 2003.
- Witt, Jeffrey < wittj@sill.army.mil >. "Female Accessions." Electronic mail message to LTC Chris Fulton < Christopher.fulton@carlisle.army.mil >. 16 January 2003.
- "Women in the Field Artillery." Field Artillery Journal. November-December 1986.